

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	GADDAM, et al.
Serial No.	:	10/526,873
Confirmation No.	:	7413
Filing Date	:	March 4, 2005
Group Art Unit	:	2474
Examiner	:	Jamal Javaid
Attorney Docket No.	:	US020325

**REPLY BRIEF
On Appeal from Group Art Unit 2474**

Date: January 12, 2010

Attn: Board of Patent Appeals and Interferences
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In addition to the arguments presented in the Appeal Brief filed August 4, 2009, and in response to the Examiner's Answer dated November 12, 2009, the Appellants submit the following reply.

REMARKS

This Reply Brief is in response to the Examiner's Answer dated November 12, 2009. Reconsideration of this application is respectfully requested in view of the arguments contained in the Appeal Brief of August 4, 2009, prior responses and the following remarks.

STATUS OF CLAIMS

- a) Claims 1-20 are pending at the time of filing the appeal brief.
- b) Claims 1 and 11 are independent.
- c) Claims 1-20 stand rejected and are the subject of this appeal.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- A. Whether claims 1, 2, 5-8, 10-12, 15-18, and 20 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Breti et al., US 2005/0152411 (hereinafter referred to as "Breti") in view of Bellier et al., US 2002/0194566 (hereinafter "Bellier").
- B. Whether claims 3 and 13 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Breti in view of Bellier in further view of Abbott et al., US 6,438,569 (hereinafter "Abbott").
- C. Whether claims 4 and 14 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Breti in view of Bellier in further view of Choi et al., US 2002/0041608 (hereinafter "Choi").
- D. Whether claims 9 and 19 are properly rejected under 35 U.S.C. 103(a) as being unpatentable over Breti in view of Bellier in further view of Knutson et al., US 6,788,710 (hereinafter "Knutson").

ARGUMENT IN RESPONSE TO THE EXAMINER'S ANSWER

The Appellants respectfully responds to the Examiner's Answer below.

A. Claims 1, 2, 5-8, 10-12, 15-18, and 20 are not properly rejected under 35 U.S.C.

103(a) as being unpatentable over Breti in view of Bellier.

1. Claim 1

It is respectfully submitted that the Examiner failed to establish a *prima facie* case of obviousness, because as discussed below, a suggestion of all limitations in the claims is lacking in the combination of Breti and Bellier.

The Appellants' independent claim 1 calls, in part, for:

... a multiplexer having an output port, an input port for inputting an information bit-stream and an input port for inputting a placeholder bit-stream, for multiplexing the bit-streams inputted from the input ports to form a multiplexed bit-stream for output on the output port;

a data formatter for receiving the multiplexed bit-stream and for replacing bits of said placeholder bit-stream within the received multiplexed bit-stream with bits derived from said information bit-stream within said received multiplexed bit-stream to form a modified bit-stream. . .

In the Response to Arguments section of the Examiner's Answer (hereinafter "Answer") at section 10 on pages 20-25, the Examiner presents three arguments to assert that Breti in combination with Bellier discloses or suggests the Appellants' claimed invention. The Appellants respectfully explain that each of the three arguments fails to show that the cited references disclose or suggest the claimed invention.

FIRST, Breti at Figure 11 shows two separate and distinct multiplexers, 186 and 190, respectively, with each of multiplexers 186 and 190 having a separate and distinct function. Breti at paragraph [0065] explains that the data at the output of the multiplexer 186 may be referred to as Rdata (n.o.), which stands for normally ordered robust VSB data. Meanwhile,

paragraph [0067] explains that the output of multiplexer 190 is interleaved by an interleaver 192 in order to achieve a correct ATSC convolutional interleave. A data replacer 194 replaces each dummy robust VSB data placeholder byte from the multiplexer 190 with the next corresponding normally ordered robust VSB data byte from the multiplexer 186. In other words, the multiplexers 186 and 190 of Breti are correctly considered two separate multiplexers with distinct functions.

The Appellants respectfully submit that the Examiner incorrectly takes the two multiplexers 186 and 190 to constitute one multiplexer. As pointed out above, multiplexers 186 and 190 are two separate and distinct multiplexers, each having a separate and distinct function. Nothing in Breti or Bellier suggests taking the two multiplexers together to constitute one multiplexer.

On page 22 of the Answer, the Examiner alleges that the two multiplexers are taken together to constitute one multiplexer, and further alleges that the Appellants acknowledge and accept such a position and therefore allegedly contradict their own arguments. This is a misunderstanding. Nowhere in the appeal brief did the Appellants acknowledge and accept the Examiner's position that the two multiplexers 186 and 190 of Breti are taken together to constitute one multiplexer. The Appellants respectfully request the Examiner to specifically point out where in the Appeal Brief (hereinafter "Brief") do the Appellants acknowledge and accept the position that the two multiplexers 186 and 190 of Breti are taken together to constitute one multiplexer.

SECOND, the Examiner contends that the term "same" is not in claim 1, however the word "same" is used in the discussion of claim 1, and therefore, the Examiner contends, the context of claim 1 is narrower than what is written in the claim language.

While the Appellants acknowledge and accept that the term “same” is not used in claim 1, the Appellants respectfully submit that the term “same” in the discussion of claim 1 does not narrow the context of claim 1.

In the Brief, the Appellants use the term “same” in the discussion of the claims in order to more clearly highlight and explain the distinguishing features of the claimed invention. However, the Appellants did not use the term “same” to alter the context of the claim language.

Breti’s data formatter receives and formats two separate and distinct multiplexed bit-streams; (1) the output of mux 186 and (2) the output of mux 190. These two bit streams are not the same streams. They are two different streams. In contrast, the claimed invention requires “a data formatter for receiving the multiplexed bit-stream and for replacing bits of said placeholder bit-stream within the received multiplexed bit-stream. . . .”

As explained at Figure 3 and at page 19, line 24 – page 20, line 1 of the specification as filed, the bit streams are multiplexed from the standard, robust and placeholder inputs 310, 315, and 320, respectively. Claim 1 requires a data formatter for receiving the multiplexed bit-stream and for “replacing bits of said placeholder bit-stream within the received multiplexed bit-stream . . .” In other words, the placeholder bit-stream is within the received multiplexed bit stream. The Appellants used the term “same” in the discussion section of the Brief to highlight that the placeholder bit-stream is from within the same stream as the received multiplexed bit-stream. This is completely different from Breti, which discloses that the data formatter receives and formats two separate and distinct multiplexed bit-streams. The Appellants, in no way, used the term “same” in the discussion section of the Brief as an attempt to alter the context of the claim language.

THIRD, the Examiner alleges that Bellier in combination with Breti teaches or suggests the claimed invention. The Appellants respectfully traverse this argument.

The Examiner at the bottom of page 23 of the Answer admits that the secondary reference of Bellier was included *solely* to teach the aspect of replacing bits of a placeholder bit-stream with information bits derived from the same data stream. The Appellants respectfully set forth two separate, independent, and mutually-exclusive counter arguments.

First, although Bellier discloses a method of transmitting signaling messages in a mobile telecommunications network, Bellier does not cure the deficiency of Breti with respect to claim 1. Nowhere does Bellier disclose or even suggest a multiplexer having an output port, an input port for inputting an information bit-stream and an input port for inputting a placeholder bit-stream, for multiplexing the bit-streams inputted from the input ports to form a multiplexed bit-stream for output on the output port, as required in claim 1. Accordingly, for this independent reason, the combination of Breti and Bellier do not disclose or suggest the claimed invention.

Second, Bellier does not teach or suggest “a data formatter for receiving the multiplexed bit-stream and for replacing bits of said placeholder bit-stream within the received multiplexed bit-stream with bits derived from said information bit-stream within said received multiplexed bit-stream. . .” as required by claim 1.

Bellier appears to disclose a method of transmitting signaling messages by using the Slow Associated Control Channel (SACCH), wherein a plurality of dummy bits are inserted into the SACCH block, and then the dummy bits in each SACCH block are replaced by the inband signaling for transmission. The Examiner at pages 24-25 of the Answer alleges that Bellier at paragraph [0037] and claims 1-3 discloses the aspect of replacing bits of a placeholder bit-stream

with information bits derived from the same data stream. The Appellants respectfully submit that such allegation is not correct.

Bellier at figure 1 and paragraph [0037] discloses a method for transmitting signaling messages in a SACCH block, where dummy bits are inserted into the SACCH block, and then the dummy bits are replaced by bits representative of a signaling message. Bellier at [0037] also discloses that the signaling message can be derived from a Fast Power Control signal. However, there is nothing in Bellier that suggests or indicates that a Fast Power Control signal is derived from “within the received multiplexed bit-stream” as required in claim 1.

Furthermore, claim 1 of Bellier recites, in part, “placing further bits into at least part of the available bits, wherein the further bits are indicative of the messages to be signaled between the mobile station and the base station.” However, there is nothing in Bellier that suggests or indicates that the “further bits” of Bellier’s claim 1, which are placed into at least part of the available bits, are derived from “within the received multiplexed bit-stream” as required in the Appellants’ claim 1.

Also, claim 3 of Bellier recites, in part, “rearranging the bits in the modified coded block in an interleaving manner for obtaining an interleaved block containing the dummy bits in further bit locations determinable from the pre-defined bit locations; and replacing the dummy bits in the interleaved block with the further bits.” Similar to the above-analysis for Bellier’s claim 1, nothing in Bellier suggests or indicates that the “further bits” of Bellier’s claim 3, which are placed into at least part of the available bits, are derived from “within the received multiplexed bit-stream” as required in the Appellants’ claim 1.

For at least the foregoing reasons, it is respectfully submitted that a *prima facie* case of obviousness, as required under 35 U.S.C. 103(a), has not been established and the rejection

should be reversed.

2. Claim 11

Independent claim 11 includes similar features of: “replacing bits of said placeholder bit-stream within the received multiplexed bit-stream with bits derived from said information bit-stream within said received multiplexed bit-stream to form a modified bit-stream.” Emphasis added. The Appellants essentially repeat the above arguments from claim 1 and apply them to independent claim 11 and for at least the same reasons as in claim 1, it is respectfully submitted that the rejection of claim 11, over Breti and Bellier, is not supported and the rejection should be reversed.

3. Claims 2, 5-8, 10, 12, 15-18, and 20

Claims 2, 5-8, 10, 12, 15-18, and 20 depend from claims 1 or 11 and incorporate by reference all of the features of the allowable parent claim. Furthermore, each of these claims includes additional distinguishing features. The Appellants essentially repeat the above arguments from claim 1 or 11 and apply them to each of claims 2, 5-8, 10, 12, 15-18, and 20, respectively. As such, the Appellants respectfully submit that claims 2, 5-8, 10, 12, 15-18, and 20 are allowable at least by virtue of their dependency on allowable base claims 1 or 11 and that the rejection under 35 U.S.C. 103(a) is unfounded and should be reversed.

B. Claims 3 and 13 are not properly rejected under 35 U.S.C. 103(a) as being unpatentable over Breti in view of Bellier in further in view of Abbott.

4. Claims 3 and 13

Claims 3 and 13 ultimately depend from claim 1 or 11 and incorporate by reference all of the features of the allowable parent claim. Furthermore, claims 3 and 13 each include additional distinguishing features. The Appellants essentially repeat the above arguments from claims 1 or

11 and apply them to claims 3 and 13, respectively. Abbott does not cure the deficiencies noted above as applied to claims 3 and 13.

Additionally, MPEP 2142 states:

"[r]ejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 R.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR International Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 USPQ2c 1385, 1396 (2007) (quoting Federal Circuit statement with approval).

The Appellants respectively maintain that the Examiner, at page 26 of the Answer, simply provides a conclusory statement that it would be obvious to one of ordinary skill in the art to modify Breti and Bellier with the invention of Abbott. Abbot relates to the sums of products datapath. The Appellants respectfully submit that the Examiner does not provide sufficient explanation or supporting evidence as to why one of ordinary skill in the art would understand that such modification would be motivated based on a system that is "fast, cost-effective, and reconfigurable."

The Office is simply providing conclusory statements to support the cited references in making this rejection. Nowhere is there any suggestion in Breti, Bellier or Abbot, or with the knowledge of one ordinarily skilled in the art to support these conclusory statements.

KSR makes clear that rejections on obviousness cannot be sustained by mere conclusory statements; instead KSR requires that an Examiner provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." (KSR Opinion at p. 14). An Examiner must "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does," (KSR Opinion at p. 15). The Examiner must make "explicit" this rationale of "the apparent reason to

combine the known elements in the fashion claimed,” including a detailed explanation of “the effects of demands known to the design community or present in the marketplace” and “the background knowledge possessed by a person having ordinary skill in the art.” (KSR Opinion at p. 14). Anything less than such an explicit analysis may not be sufficient to support a prima facie case of obviousness. As such, the Appellants respectfully submit that claims 3 and 13 are allowable and that the rejection under 35 U.S.C. 103(a) is unfounded and should be reversed.

C. Claims 4 and 14 are not properly rejected under 35 U.S.C. 103(a) as being unpatentable over Breti in view of Bellier in further view of Choi.

5. Claims 4 and 14

Claims 4 and 14 ultimately depend from claim 1 or 11 and incorporate by reference all of the features of the allowable parent claim. Furthermore, claims 4 and 14 each include additional distinguishing features. The Appellants essentially repeat the above arguments from claims 1 or 11 and apply them to claims 4 and 14, respectively. Choi does not cure the deficiencies noted above as applied to claims 4 and 14. Additionally, the final Office action again makes conclusory statements to support this combination without providing the proper support as discussed above in subsection B. As such, the Appellants respectfully submit that claims 4 and 14 are allowable at least by virtue of their dependency on allowable base claims 1 or 11 and that the rejection under 35 U.S.C. 103(a), is unfounded and should be reversed.

D. Claims 9 and 19 are not properly rejected under 35 U.S.C. 103(a) as being unpatentable over Breti in view of Bellier in further view of Knutson.

6. Claims 9 and 19

Claims 9 and 19 ultimately depend from claim 1 or 11 and incorporate by reference all of the features of the allowable parent claim. Furthermore, claims 9 and 19 each include additional

distinguishing features. The Appellants essentially repeat the above arguments from claims 1 or 11 and apply them to claims 9 and 19, respectively. Knutson does not cure the deficiencies noted above as applied to claims 9 and 19. Additionally, the final Office action again makes conclusory statements to support this combination without providing the proper support as discussed above in subsection B. As such, the Appellants respectfully submit that claims 9 and 19 are allowable at least by virtue of their dependency on allowable base claims 1 or 11 and that the rejection under 35 U.S.C. 103(a) is unfounded and should be reversed.

CONCLUSION

In light of the above and the Appellants' Appeal Brief, the Appellants respectfully submit that the rejections of claims 1-20 are in error, legally and factually, and must be reversed.

Respectfully submitted,

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